

## Africa Regional Scholarship and Innovation Fund for Applied Sciences, Engineering and Technology

### Progress Report to the PASET EB January – March 2021

#### Executive Summary

Initiated and owned by African governments and implemented by *icipe*, the Regional Scholarship and Innovation Fund (RSIF) aims to build a critical mass of skills and knowledge needed to increase the use of science, technology, and innovation for sustainable economic growth in sub-Saharan Africa (SSA). This report provides achievements of the RSIF program for the quarter **January – March 2021**. A summary is included below:

- a) First instalments of funds were received from governments of **Burkina Faso, Ghana and Senegal**.
- b) There were two new contributing African governments in the period: **Benin** (USD 2 million) and **Mozambique** (USD 6 million). In addition, the **Nigeria** Subsidiary Agreement (USD 4 million) was finalized and is awaiting countersignature by the Nigerian government.
- c) *icipe* signed the grant agreement for USD 4.7 million for “Accelerating agri-based digital innovations in West Africa”, part of the **ACP Innovation Fund** of the Organisation of African, Caribbean and Pacific States (**OACPS**) **Research and Innovation Programme** of the European Union. This will extend RSIF’s windows 2&3 work in West Africa with a focus on digital innovation.
- d) The feasibility study for **RSIF’s Permanent Fund** has been completed and submitted to PASET Executive Board in the period. Key issues were flagged during the RSIF mid-term review in order to determine the way forward and allow *icipe* to fast-track implementation.
- e) The Independent Review Committee for the **selection of four additional African Host Universities (AHUs)** to offer PhD programs in the PASET priority thematic areas will meet on 26 April to shortlist universities for further validation. It is expected that the selection of new PhD programs will be completed by 20 July and that contracts with new AHUs will be completed by 15 August 2021. The updated timeline for the selection of AHUs is provided.
- f) Scholars are performing well academically and have remained motivated despite the COVID-19 challenges. All 15 **Cohort 1 scholars** are now matched to International Partner Institutes (IPIs), 12 are currently with IPIS, and the other will join in 2021. **Cohort 2 scholars** are at various stages of reporting to the host universities to start their PhD studies. **Cohort 3 scholars**: Out of 2577 applications received, 102 PhD scholarships were awarded for Cohort 3 comprising 43% women and 47% university faculty.
- g) During the quarter, the **grant project teams (Windows 2&3)** progressed in their project implementation. Specific key activities implemented by Innovation Type 1 grantees (Institutional Innovation Capacity Building Program Grant) include; (i) processes for review of institutional policies on innovation, Intellectual property right management and technology transfer process for their universities initiated; (ii) training workshops and guest lectures on innovation, entrepreneurship and research commercialization conducted; (iii) processes for developing short courses on innovation and entrepreneurship initiated; and (iv) stakeholder mapping and networking visits to industry stakeholders for establishment of partnerships.
- h) **RSIF’s visibility and engagement** continues to grow, guided by RSIF recently developed Communications Strategy. For example, RSIF is now on Twitter, Facebook, LinkedIn, Instagram and YouTube (with 785, 1310, 220, 41 and 112 followers respectively). Following more consistent posting linked to the strategic campaigns, and the weekly RSIF newsletters (7,500 subscribers), engagement is up significantly. Campaigns were implemented including with the United Nations Economic Commission for Africa (UNECA) on International Womens’ Day.
- i) The key challenge during the period has been the **impact of COVID-19** on the program. An assessment was undertaken to evaluate these impacts and to inform responses by the RCU.

## Summary of Request to the EB in this report

### **(1.1) Permanent Fund design** (page 4)

- Approve the Implementation plan for the Feasibility Study Report to enable *icipe* to move forward with the legal establishment of the Fund.
- The EB is also requested to note the dates of the RSIF Annual Conference – invitation letters will follow.

### **(2.2 & 2.3) Implementation status of Research Grants (Window 2, Type 1) and Selection of Cohort 3 PhD Scholars** (page 9)

- Note research progress of the RSIF PhD scholars and progress in implementation of the Research and Innovation grants.
- Note that the World Bank Grant to *icipe* will expire in 2024 and the need to consider implications for the new country funding for scholarships that will stretch beyond this period.

### **(3.1 & 3.2) RSIF Communications and Covid-19 support** (page 10)

- The EB is requested to note progress on communications and Covid-19 impacts on RSIF PhD Scholars.

## 1.0 Introduction

The Regional Scholarship and Innovation Fund (RSIF) aims to build a critical mass of skills and knowledge needed to increase the use of science, technology, and innovation for sustainable economic growth in sub-Saharan Africa (SSA). The report provides a summary of progress in the implementation of the RSIF Program for the period **Jan-March 2021**. The report is presented along RSIF program component areas: viz, Component 1: *Capacity Development for Operation of the Scholarship, Research, and Innovation Fund*; and Component 2: *PhD Scholarships, research grants and innovation grants*.

### Component 1: Capacity Development for Operation of the Scholarship, Research, and Innovation Fund

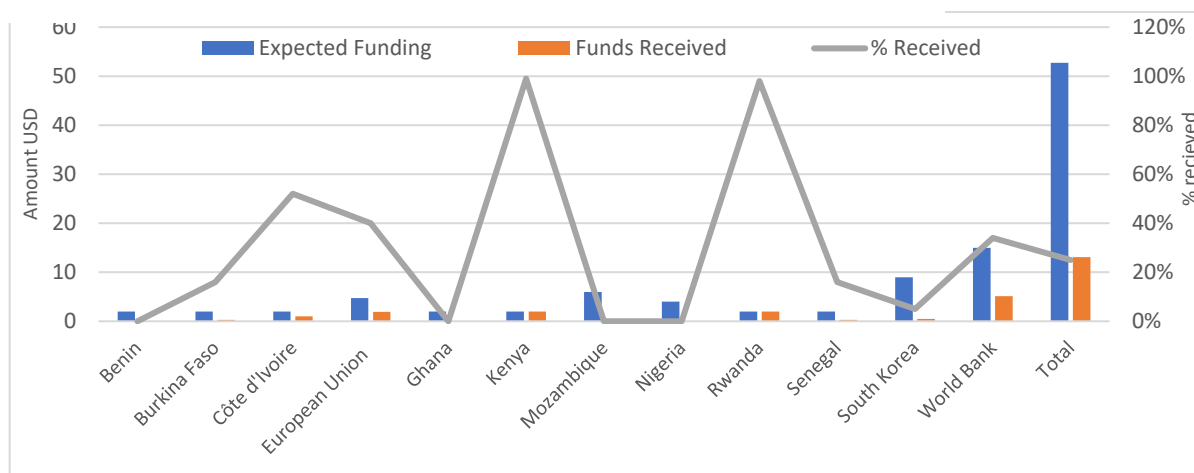
#### 1.1 Capacity building for management of the RSIF General Fund and setting up the RSIF Permanent Fund:

The sub-component aims to strengthen the capacity of *icipe* as the RSIF Regional Coordination Unit (RCU) to engage in innovative fundraising strategies to reach funding partners relevant to the Fund and to design and operationalise the RSIF Permanent Fund. Key activities are described as part of resource mobilisation and establishment of the RSIF Permanent Fund.

##### 1.1.1 Resource mobilization

Overall, the resource mobilization is on track with 56% of the project end target of USD 65 million reached and USD 36.7 million committed to date (Fig 1). Total received and expected income is USD 52.7 million, 25% of which has been received in line with student activities (Fig 1). However, due to COVID-19, forums, events and donor visits could not take place as planned. The Pandemic has also impacted negatively on investment decisions by donors and governments (e.g. decision by UK government to cut aid from 0.7%-0.5% of Gross National Income).

**Fig 1. RSIF country contributions and commitments (USD million)**



- a) *icipe*, the RSIF Regional Coordination unit, signed an grant agreement for USD 4.7 million for the EU funded project “Accelerating agri-based digital innovations in West Africa” in early January 2021 and received the first tranche of USD 1.9 million. The action will boost RSIF’s Window 2& 3 activities in West Africa. Funding is from the EU ACP Innovation Fund of the Organisation of African, Caribbean and Pacific States (OACPS) Research and Innovation Programme. The program will provide up to twelve sub-awards to eligible institutions (including in PASET member countries of **Benin, Burkina Faso, Ghana, Senegal**, as well as incoming members **Côte d’Ivoire and Nigeria**). Twelve grants of between Euro 150,000-300,000 will be provided by RSIF through this program to be implemented in partnership with private sector and other stakeholder groups.

- b) There were two new contributing African governments in the period- **Benin and Mozambique**. This brings the total number of African contributing countries to RSIF to eight (Benin, Burkina Faso, Côte d'Ivoire, Kenya, Ghana, Mozambique, Rwanda and Senegal).
  - i. **(Benin)** Agreement with Government of Benin (USD 2 million) was fully signed on 8 February 2021.
  - ii. **(Mozambique)** The subsidiary agreement between *icipe* and the Government of Mozambique has been fully executed for a contribution of USD 6 million to RSIF from the Government of Mozambique (70% will be allocated to doctoral scholarships and 30% to research and innovation grants).
- c) Discussions underway with other countries including Malawi, Nigeria, Tanzania and Uganda.
  - i. **(Nigeria)** The subsidiary agreement with the Government of Nigeria was signed by *icipe* on 11 February 2021. Originals were transmitted for counter-signature by the Government of Nigeria.
  - ii. **(Cote d'Ivoire)** Official communication and follow-up was done and the national focal point confirmed their intention to pay the remaining USD 1 million balance to become a PASET member and join the EB.
  - iii. **(Tanzania)** Further documentation on benefits for Tanzania by joining RSIF was developed and shared with the Ministry of Education. Their intention is to contribute to RSIF via national WB project under development.
- d) *icipe* continued to engage other potential donors in RSIF activities, committees and keeping them informed of RSIF progress in frequent newsletters. Continued visibility and advocacy for the importance of investing in Africa's science capacities, such as through RSIF, were also done in various high-level meetings and engagements including in the University of Michigan Africa week, the first [SOAS Director Lecture Series with Financial Times and WHO](#) and celebration of [icipe's Food Planet Prize win](#).
- e) Following RSIF's continued private sector outreach, initial discussion was held with Tony Elemelu Foundation for possible partnership on entrepreneurship.
- f) The RSIF Annual Conference has been scheduled for 15-19 November 2021 to be co-hosted by Mohammed VI Polytechnic in **Morocco** and will showcase RSIF and its impact to current and potential donors.

### 1.1.2 Design of the RSIF Permanent Fund

The professional firm commissioned to undertake the feasibility study for the establishment of an RSIF permanent fund, financed under the IDA grant, submitted the final study report, final funding strategy, and proposed implementation plan with budget to *icipe* on 27 January 2021. Following the conclusion of this major assignment, *icipe* forwarded the full report with all its annexes to the PASET Executive Board via the World Bank for formal approval. Following approval, the next steps expected to start in earnest in the coming quarter are to: i) engage a legal advisor to draft RSIF legal registration documents; (ii) identify and recruit the independent Board of Directors; (iii) amplify communications, including corporate branding, with support of a communications firm in support of resource mobilisation; (iv) with PASET member governments host several high-level events for resource mobilisation; (v) engage expert(s) to support innovative fundraising methods; and (vi) initiate the procurement process for a fund manager.

#### **Request to EB:**

The EB is requested to:

- a) Approve the implementation plan for the Feasibility Study Report to enable *icipe* to move forward with the legal establishment of the Fund.
- b) The EB is also requested to note the dates of the RSIF Annual Conference – invitation letters will follow.

## 1.2 Capacity development for the operation and management of doctoral training scholarships in selected AHUs

### 1.2.1 Selection of additional RSIF African Host Universities (AHUs)

A call for additional four PhD programmes to host RSIF PhD students at African universities was published and disseminated to existing AHUs and to ACEs in the four relevant RSIF themes, based on guidance from the EB. The call was open between 25 September to 23 November 2020. The desk reviews of 23 eligible applications will be completed by 9<sup>th</sup> April, and the Independent Review Committees will complete their virtual meetings to confirm scoring by 23<sup>rd</sup> April 2021. The Independent Review Committee will meet on 26<sup>th</sup> April to shortlist universities for further validation. It is expected that the selection of new PhD programs will be completed by 20<sup>th</sup> July and that contracts with new AHUs will be completed by 15<sup>th</sup> August 2021. The updated timeline for the selection of AHUs is provided in Table 1 below.

Table 1. Timeline for the selection of AHUs

	Activity	Timeline
1	Independent Reviews: technical evaluation of applications by 12 thematic area experts (Independent Review [IRC] desk reviews)	9 April 2021
2	IRC meetings to confirm evaluation scores	23 April 2021
3	Virtual meeting of IEC to shortlist applications for validation (Independent Review Committee meetings)	26 April 2021
4	Validation of shortlisted applications (on-site evaluations)	24 June 2021
5	Validation of shortlisted applications (virtual meetings with shortlisted applicants)	18 July 2021
6	Virtual meeting of the IEC to make the final selection of PhD programs/African Host Universities	20 July 2021
7	EB approval	30 July 2021
8	Negotiations and signing of agreements between AHUs and <i>icipe</i>	15 August 2021

### 1.2.2 Information Communications and Technology

- a) Procurement, delivery, and installation of the African host Universities video conferencing equipment is almost completed with a few sites/AHUs awaiting delivery of equipment previously unavailable.
- b) The development of a Management Information System (MIS) for RSIF to support the automation of the scholarship and innovation components of the program is underway. The system analysis is complete and RCU is currently finalizing the system design document after which development will start.
- c) The E-Systems for RSIF are continuously improved to enhance data capture. Systems maintained and improved are AHU application; reimbursement reports and receipts submission and poster/presentation and invoice submission, scholar review, Grants application and AgriDi application. Ongoing technological maintenance continues to be undertaken for:
  - i. RSIF website.
  - ii. RSIF repository and knowledge hub is up and running with continuous updates.
  - iii. The implementation of Enterprise Resource Planning.

## 1.3 Capacity development for improving the quality of PhD programs and research in ASET fields

### 1.3.1 Capacity Building Strategy and Implementation

*icipe* has continued during the period with the implementation of the RSIF Capacity Building Strategy to enhance the quality of PhD training at AHUs.

### **1.3.1.1 RSIF Guest Webinar Series**

Three monthly guest webinars were held during the reporting period:

- (1) Ms Jayshree Naidoo (CEO-YIEDI Ltd, South Africa) “Innovation, Incubation Design and Management, Entrepreneurship” on 27 January 2021.
- (2) Ms Beth Koigi (Co-Founder Majik Water, Kenya) “Turning your ideas into products and services” on 24 February 2021.
- (3) Dr. Rose Mutiso (CEO & Founder Mawazo Foundation) “Path to research and thought leadership for early career African scientists” on 31 March 2021.

### **1.3.1.2 RSIF PhD Student Webinars**

Scientific presentations by nine RSIF PhD students were given at three webinar events, held on 6 Jan, 3 Feb and 3 March 2021.

### **1.3.1.3 Increased access to subscribed e-resources for AHU Libraries**

AHU libraries, in consultation with the RSIF coordinators at the AHUs agreed on e-resources (e-book and e-journal collections) to subscribe to for 2021 and 2022. The *icipe*-AHU agreements were amended allowing the transfer of funds directly from *icipe* to publishers. RSIF sought invoices from the publishers and signed agreements by both AHUs and publishers for raising payment. In total, the AHUs will gain subscription access to 45,136 e-resources (41,926 e-books and 3,210 e-journals). Of the 45,136 e-resources, 4,474 e-books and 452 e-journals will have perpetual access. Payment has been made for 7 AHUs: 1) University of Gaston Berger (UGB); 2) Kenyatta University; 3) Nelson Mandela Institute of Science & Technology (NMAIST); 4) University of Rwanda; 5) University of Nairobi (UoN); 6) Sokoine university of Agriculture (SUA); and 7) University of Port Harcourt (UPH). Pending payment: 1) African University of Science & Technology (AUST); 2) Bayero University Kano (BUK); 3) Felix Houphouet- Boigny (UFHB); and 4) University of Ghana.

### **1.3.2 Development of a Research and Innovation Strategy for RSIF**

The RCU continues to fast track the development of the Research and Innovation Strategy that will guide RSIF research activities and ensure both alignments with country development strategies as well as impact. A draft research strategy concept is being developed, final strategy to be completed by June 2021.

## **1.4 Capacity development for the operation and management of innovation grants**

### **1.4.1 Implementation Status of RSIF Innovation Grants**

During the quarter, the grant project teams progressed in activity implementation towards strengthening their institutional innovation eco-systems and commercializing their research products. Specific key activities implemented by Innovation Type 1 grantees (Institutional Innovation Capacity Building Program Grant) include; (i) processes for review of institutional policies on innovation, Intellectual property right management and technology transfer process for their universities initiated; (ii) training workshops and guest lectures on innovation, entrepreneurship and research commercialization conducted; (iii) processes for developing short courses on innovation and entrepreneurship initiated; and (iv) stakeholder mapping and networking visits to industry stakeholders for establishment of partnerships. Similarly, innovation projects funded under Cooperability Grants have initiated processes for laboratory and field work to improve their prototypes and produce minimum viable products. Please visit this [link](#) for detailed status of each grant project.

### **1.4.2 Mozambique contribution to RSIF for award of research and innovation grants**

The RCU continues to discuss with the government of Mozambique contribution to the RSIF windows 2&3 through the World Bank funded project on “Improvement of Skills Development in Mozambique” (MozSkills). A total of US 1.8M is proposed for award of research and innovation grants targeting

researchers, scientist and innovators from Mozambique higher education institutions, research Centre, Small and Medium Enterprises and private sectors closely collaborating with AHUs and international research organizations in the RSIF network. The design of the grants will follow the RSIF framework. A sub-grant project design document has been developed and consultations are ongoing with the Mozambique government. The 1st Call for Proposal will be launched in July 2021.

### 1.4.3 Accelerating inclusive green growth through Agri-based digital innovation in West Africa (AGriDI Project)

As highlighted earlier, *icipe* has won a 4-year EUR 4.9million grant from the European Union, ACP Innovation Fund to enhance inclusive green growth through Agri-based digital innovations especially for women and youth farmers in Western Africa. The grants will be implemented under the Windows 2&3 of RSIF through up to 12 grants of up EUR 300,000 to consortia made up of academics and other scientists, innovators, policy makers, small business owners and other private sector actors and farmers in ECOWAS eligible countries. The call for proposal is currently open.

### 1.4.4 Grantees Technical Assistance Implementation Plan

As part of implementing the Grantees Technical Assistance Implementation Plan, *icipe* implemented the following activities to support grantees successfully implement their projects to achieve the desired outcomes.

- i. Consultative meetings on development of online innovation and entrepreneurship course for the RCU and AHUs held on February 5, 2021
- ii. Incubation support, mentoring and business modelling; product route to market discussions with Cooperability grantees on February 5, 2021
- iii. Seminar on academic management of innovation including intellectual property management at universities by Dr. Jesper Vasell on February 25, 2021
- iv. Intellectual Property Manual published in English and French.
- v. Quarterly review meetings to discuss progress, challenges and areas for technical support held on March 31, 2021.

## Component 2: PhD Scholarships and Research Grants

### 2.1 Training of doctoral Students

PhD Scholars in Cohorts 1 & 2 have progressed in their PhD studies despite the Covid-19 challenges while Cohort 3 has now been awarded (Table 2). This brings total number of students awarded to 184 from over 20 african countries, with funding from 8 contributing African countries. Of these, 38.8 are women.

**Table 2: RSIF PhD Scholars by country and cohorts**

Year	No. of PhD scholarships	African governments funding RSIF	Breakdown of PhD recipients (countries and no. of recipients for each)	Percentage of scholars that are women	No of AHUs
2018	15	Kenya, Rwanda	Benin 1, Ghana 1, Côte d'Ivoire 1, Kenya 5, Nigeria 1, Rwanda 4, Senegal 1, Tanzania 1	20%	4
2019	-		-	-	11
2020	67	Benin, Burkina Faso, Côte d'Ivoire, Ghana, Kenya, Rwanda, Senegal	Benin 4, Burkina Faso 3, Cameroon 4, Chad 2, Congo 1, Côte d'Ivoire 4, Ethiopia 2, Ghana 11, Kenya 12, Malawi 1, Nigeria 4, Rwanda 8, Senegal 3, Sudan 1, Tanzania 3, Uganda 2, Zimbabwe 2	40.3%	11
2021	102	Benin, Burkina Faso, Côte d'Ivoire, Ghana, Nigeria, Rwanda, Senegal	Benin 8; Burundi 2; Burkina Faso 2; Côte d'Ivoire 5; Ghana 9; Nigeria 22; Rwanda 8; Senegal 2; Cameroon 3; Chad 1; DRC 3; Ethiopia 8; Kenya 8; Malawi 2; Mali 1; Niger 2; South Sudan 1; Sudan 1; Tanzania 7; Togo 1; Uganda 4; Zimbabwe 3	39.8%	11
<b>Total</b>	<b>184</b>	<b>8</b>	<b>184</b>	<b>38.79%</b>	<b>11</b>



### 2.1.2 Status of Cohort 1 RSIF PhD Scholars

12 of the 15 of Cohort-1 scholars are currently on sandwich attachment at International Partner Institutes and are expected to complete their sandwich programs in the course of the year. To date Cohort 1 have published 23 peer-reviewed and conference papers, while Cohort 2 have published 14 papers (Table 3). Of these, eight papers were authored by females and 29 males. See Annex 1 for more details.

**Table 3: RSIF Scholars publications (2018 – March 2021)\***

Thematic area		Gender	2018	2019	2020	2021*	Total	Thematic total
1.	Climate change	Female	-	-	2	1	3	10
		Male	-	2	1	4	7	
2.	Energy including Renewables	Female	-	-	-	-	-	2
		Male	-	-	1	1	2	
3.	Food security and Agribusiness	Female	-	-	1	-	1	12
		Male	-	1	8	2	11	
4.	Minerals, Mining and Materials Engineering	Female	-	-	-	2	2	8
		Male	-	1	4	1	6	
5.	ICTs including Big Data and Artificial Intelligence	Female	-	2	-	-	2	5
		Male	-	1	2	-	3	
<b>Total</b>			<b>0</b>	<b>7</b>	<b>19</b>	<b>11</b>		<b>37</b>

\*All works are uploaded on RSIF Repository: <http://repository.rsif-paset.org:8080/xmlui/>

### 2.1.3 Current Status of the Cohort 2 RSIF PhD Scholars

60 Cohort 2 Scholars have travelled to their AHUs following the initial closures due to Covid restrictions (before travelling most were working remotely). Two scholars have been unable to travel to their universities and are currently working remotely. Two scholars had deferred studies, but will start next semester. One scholar broke off studies for a few months, but will restart soon. Two scholars have resigned due to personal reasons. With regards to research progress, 22 scholars have defended their PhD proposal and have initiated research activities, 18 completed their proposal but not yet defended, and 22 are still in the process of completing the proposal preparation for defense, prior to starting research. Thirteen scholars have completed their mandatory university coursework, 20 have started but not yet completed, and 26 do not have any mandatory coursework. On average, Cohort 2 scholars have taken at least four RSIF training courses. Fourteen scientific papers have been published to date. More than half of the scholars have been matched with an IPI while negotiations are on-going for the remaining students to be matched.

### 2.1.4 Selection of Cohort-3 of PhD Scholars

The process for selection of the Cohort 3 of RSIF PhD scholars was approved by the PASET EB in 2020. 2577 applications were received. *icipe* screened all applications to ensure eligibility to the competition and completeness of the application, and to check for plagiarism. After screening, 2,202 applications [representing 40 African nationalities, 378 women (17%), and 857 faculty (39%)] were sent to AHUs for pre-admission review. Each university shortlisted up to 25 eligible candidates using university-specific admission criteria. The AHUs shortlisted a total of 253 applications. Shortlisted candidates were requested to complete a one-way video interview, based on specific questions provided by *icipe*. 208 candidates completed the online interview video. Technical desk review of the 208 applications was



then undertaken by two or three independent thematic area experts. In total, 57 technical experts reviewed the 208 applications shortlisted by the AHUs. An Independent Evaluation Committee (IEC) met online on 31<sup>st</sup> March 2021 and recommended 102 candidates for consideration by the PASET EB for the award of RSIF PhD scholarships. These candidates comprise 44 women, 48 university faculty, and represent 22 nationalities in sub-Saharan Africa (10 Francophone and 12 Anglophone). The IEC also recommended 8 reserve candidates for consideration by the PASET EB.

## 2.2 Research Grants

### 2.2.1 Implementation status of Research Grants (Window 2, Type 1)

During the period, grant project teams progressed in activity implementation towards producing research outputs to solve key developmental challenges and project objectives. So far, projects teams have initiated field work for data collection and laboratory experiments including renovations of laboratory to facilitate research activities, conducted stakeholder mapping and networking visits with private sector and other relevant actors and held team meetings on student co-supervision with project partners. Please visit [here](#) for a detailed status of each grant project.

### 2.2.2 Second Call for award of Research and Innovation Grants

The 2nd Call for proposals for four research and three innovation grants was published on March 26, 2021. The Call for Proposals and process builds on lessons from the 1st Call for proposal and selection process. The RCU continues to disseminate the Calls widely targeting eligible applicants from the AHUs, International Partners, and private sector partners. The timelines for selection and award of the grants are highlighted in Table 4 below.

**Table 4: Proposed Timelines for selection and award of the 2nd Call for Proposals for Research and Innovation Grants**

No	Activity	Timelines
1.	Call for Proposals published	March 26, 2021
2.	Call for Proposals close	May 31, 2021
3.	Information Webinars	April 28-29, 2021
4.	Eligibility Screening by RCU completed by	June 11, 2021
5.	Evaluation by GITC completed by	July 9, 2021
6.	GITC report for PASET EB approval	August 10, 2021
7.	Formal contracting completed by	September 30, 2021

**Request to the EB:** The EB is requested to note research progress of the RSIF PhD scholars and progress in implementation of the Research and Innovation grants. In particular, the EB is requested to note that the World Bank Grant to icipe will expire in 2024 and the need to consider implications for the new country funding for scholarships that will stretch beyond this period.

## C. Cross-cutting activities

### 3.1 RSIF response to COVID -19

Given the fluidity of the Covid-19 situation and the current global ‘third wave’ (in some countries second waves), the situation is expected to continue to change rapidly. Almost all scholars seem to have been impacted by the covid pandemic, with negative impacts outweighing positive impacts. The most important effect will be the reported delays to research and coursework, and that women scholars have been differentially impacted to men. In one or two cases, we have had students requesting to extend studies as a result of productivity reducing impacts. These will have financial ramifications. At most universities, coursework has improved, but also delayed in a few cases. Importantly, there has been reduced research productivity and delay to laboratory work i.e and more so in some countries, where lockdowns have occurred, parallel to consecutive waves of the pandemic.

To respond to these issues, the RCU will engage more closely with Cohort 1 and Cohort 2 scholars to track their progress and provide support, based on identified needs. We will use the quarterly reports to the PASET EB and World Bank to discuss evolving impact and which mitigation measures to pursue. We expect that about 50% of Cohort 1 students will stay an extra six months beyond their current plans to finish, and this might be the same for Cohort 2. RSIF continues to expand support for online resources including linking to new resources that have become freely available during the time of COVID-19. The video conferencing facilities just purchased will provide additional options for the 11 AHUs.

### 3.2. RSIF communications

RSIF’s visibility has continued to grow, guided by RSIF recently developed Communications Strategy. For example, RSIF is now on Twitter, Facebook, LinkedIn, Instagram and YouTube (with 785, 1310, 220, 41 and 112 followers respectively). Following more consistent posting linked to the strategic campaigns, and the weekly RSIF newsletters (7,500 subscribers), engagement is up significantly (Fig 2 & 3) and continues to grow. A number of partners, such as the Tony Elumelu Foundation, the Econetwork in India etc) have reached out to *icipe* due to the enhanced communications. RSIF communication will be increasingly more strategic and targeted to underpin additional resource mobilisation from government and private sources. The Communication’s firm will be brought on board fully during the next period.

A campaign was implemented aligned to the International Day for Women and Girls in Science (11 February 2021) and International Women’s Day (8 March 2021). This includes a spotlight on selected RSIF female scholars in collaboration with the [United Nations Economic Commission for Africa](#) (UNECA). The aim is to attract more women applicants to RSIF and build awareness among development partners and African governments on RSIF’s important contribution to advance women in science. A second campaign was run in March around World Science Education Day (14 March) to draw attention on RSIF’s strategic contribution to sustainably build skills in applied sciences, engineering and technology within the continent in partnership with African host universities/ centres of excellence. [Short videos](#) on specific thematic areas as well as scholar profiles have been developed. The upgraded RSIF website is live at [www.rsif-paset.org](http://www.rsif-paset.org). Several RSIF articles have also been produced in University World News and similar outlets.

Fig 2. RSIF Social Media Engagement (only first 15days Mar)

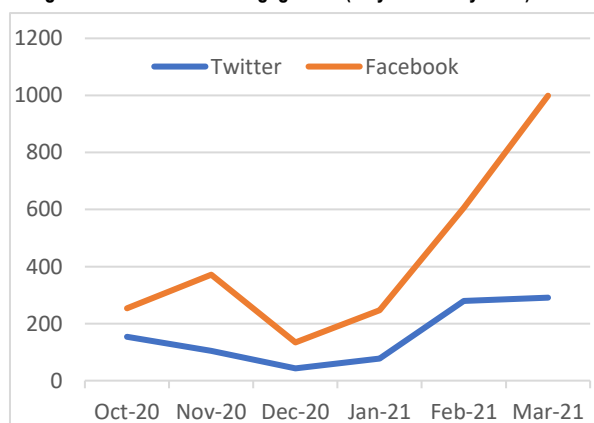
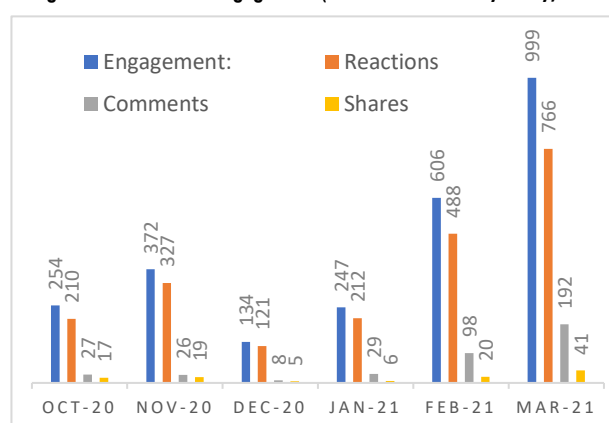


Fig 3. RSIF Facebook engagement (March - first 15 days only)



**Request to the EB:** The EB is requested to note progress on communications and covid-19 related support to scholars.

### 3.3 Monitoring and Evaluation

Monitoring and evaluation activities during this reporting period included liaising with key partners of the Agri-based Digital Innovation in West Africa (AGriDI) project to review the draft logical framework. Partners were consulted and their inputs were included in the revised project objectives and metrics. A smaller team of partner representatives will further improve the logical framework until its ready for the project inception meeting where it will be adopted. In addition, monitoring and evaluation activities also focused on processing and analysing data from the two stakeholder satisfaction surveys. A PhD students' and African Host University RSIF coordinators' satisfaction report was developed and shared. The report highlighted key challenges faced by PhD students and made recommendations which were later shared with the stakeholders, in follow-up consultation meetings. The findings were also a key component of the Mid-Term Review status paper. Key findings from the survey are summarised in Annex 2.

In response to survey finding, the RCU will among others i) support early matching of scholars with international partner institutions and early alignment of research interests between IPI and AHU supervisors and scholars; ii) support departments to develop short-term scholars' attachments/internships with industry, policy, and private sector businesses to increase research application; iii) Leverage on the already established partnerships with international institutions to create more collaborative activities between IPIs and PhD scholars including, grants writing, research implementation, academic exchanges, and access to superior training materials and iv) enhance awareness of the GRM to facilitate feedback of grievances for action and follow-up.

### 3.4 Safeguards and RSIF Grievance Redress Mechanism (GRM)

The RCU has operationalised the RSIF Grievance Redress Mechanism (GRM). The following has been achieved to date: (i) Safeguarding training course was completed in the previous period for 18 GRM representatives/focal points from African Host Universities and *icipe*; (ii) the RSIF GRM manual is completed revised and updated. The document will continue to be refined as implementation continues; (iii) a Draft RSIF Sexual and Gender Based Violence (SGBV) policy has been prepared and is under review; (iv) a Draft Safeguarding Dissemination and Communication Strategy has been prepared and is under review. These will also be synergized with the RSIF communication strategy and functionality included on the RSIF website to enable reporting. Three grievances from scholars have been received to date, all of which have been resolved related to inadequate support to mental health issues and payment of quarterly stipends. These are included in the grievance log.

### 3.5 Procurement

A total of thirty three (33) procurement activities have been undertaken for the period between January 2019 to April 2021. Out of thirty three (33) activities eighteen (18) are complete in terms of goods or service delivered, ten (10) activities are ongoing meaning that consultancies are still in progress and goods not delivered, three (3) activities were cancelled due to change in scope of service or goods specifications and one (1) consultancy was terminated. One (1) procurement activity is at contracting stage. Please see the detailed list of procurement activities [here](#).

### 3.6 RSIF Funds Allocation Report -Government Contributions (30th April 2021)\*

INCOME	Recipient	Description	Total
B8501G00001	<i>icipe</i>	Fund Balance received from AAU (Kenya/ Rwanda)	3,413,977
B8501G00001	<i>icipe</i>	Funds received from Ivorian Govt	1,033,497
B8501G00001	<i>icipe</i>	Signed Agreement - Govt of Ghana	2,000,000
B8501G00001	<i>icipe</i>	Signed Agreement - Govt of Burkina Faso	2,000,000
B8501G00001	<i>icipe</i>	Signed Agreement - Govt of Senegal	2,000,000
	<b>Total Income</b>		<b>10,447,474</b>

\*The Benin contribution will be reflected in the next period.

### 3.7 RSIF Funds allocation Report - Government Contributions (as of April, 2021)

INCOME	Notes	Kenya	Rwanda	Ivory Coast	Ghana	Burkina Faso	Senegal	TOTAL
Funds received or per signed agreement	A	1,979,177	1,963,292	1,033,497	2,000,000	2,000,000	2,000,000	10,975,966
Less : AAU Admin charges	B	131,105	130,387	-	-	-	-	261,492
Funds available for Scholarships	C=A-B	1,848,072	1,832,905	1,033,497	2,000,000	2,000,000	2,000,000	10,714,474
Scholarship Cost per student (4 years)	E	97,300	97,300	97,300	97,300	97,300	97,300	
Number of Scholarships Available	F=C/E	18	18	10	20	20	20	106
Allocation of Scholarships								
80% to Nationals	## G	15	15	8	16	16	16	86
20% to Non Nationals	## H	3	3	2	4	4	4	20
Scholarships Awarded								
Nationals	## I	14	8	4	8	1	3	38
Non Nationals	## J	5	3	2	2	4	-	16
Scholarships to Award								
Nationals	K=G-I	-	7	4	8	15	13	47
Non Nationals	L=H-J	-	-	-	2	-	4	6
Funds spent on Scholars								
By AAU	M	178,000	89,000	-	-	-	-	267,000
By Icipe	N	580,966	441,254	145,023	248,890	116,858	77,700	1,610,691
Fund Balance	O=C-M	1,089,107	1,302,651	888,474	1,751,110	1,883,142	1,922,300	8,836,783

### 3.8 Key challenges during the period

The key challenge continues to be the impact of COVID-19 on the program. Other challenges were the staff changes: one of the core staff members of the RCU, Ms. Sagal Abdul (Doctoral Scholarships Officer) separated from *icipe*. This delayed the third cohort selection process. The position will be replaced in the next period.

## Annex 1: RSIF Scholars publications (2018 -2021)

### 1. Food security and Agribusiness

- 1) **Gahamanyi, N.**, Song, D. G., Yoon, K. Y., Mboera, L. E. G., Matee, M. I., Mutangana, D., Amachawadi, R. G., Komba, E. V. G., & Pan, C. H. (2021). Antimicrobial Resistance Profiles, Virulence Genes, and Genetic Diversity of Thermophilic *Campylobacter* Species Isolated From a Layer Poultry Farm in Korea. *Frontiers in Microbiology*, 12, 554. <https://doi.org/10.3389/fmicb.2021.622275> (Male)
- 2) **Hakizimana, J. N.**, Yona, C., Kamana, O., Nauwynck, H., & Misinzo, G. (2021). African swine fever virus circulation between tanzania and neighboring countries: A systematic review and meta-analysis. In *Viruses* (Vol. 13, Issue 2, p. 306). MDPI AG. <https://doi.org/10.3390/v13020306> (Male)
- 3) Alhassan, H., **Abu, B. M.**, & Nkegbe, P. K. (2020). Access to Credit, Farm Productivity and Market Participation in Ghana: A Conditional Mixed Process Approach. *Margin*, 14(2), 226–246. <https://doi.org/10.1177/0973801020904490> (Male)
- 4) **Gahamanyi, N.**, Mboera, L. E. G., Matee, M. I., Mutangana, D., & Komba, E. V. G. (2020). Prevalence, Risk Factors, and Antimicrobial Resistance Profiles of Thermophilic *Campylobacter* Species in Humans and Animals in Sub-Saharan Africa: A Systematic Review. In *International Journal of Microbiology* (Vol. 2020). Hindawi Limited. <https://doi.org/10.1155/2020/2092478> (Male)
- 5) **Gahamanyi, N.**, Song, D. G., Cha, K. H., Yoon, K. Y., Mboera, L. E. G., Matee, M. I., Mutangana, D., Amachawadi, R. G., Komba, E. V. G., & Pan, C. H. (2020). Susceptibility of campylobacter strains to selected natural products and frontline antibiotics. *Antibiotics*, 9(11), 1–14. <https://doi.org/10.3390/antibiotics9110790> (Male)
- 6) **Waema, M. W.**, Misinzo, G., Kagira, J. M., Agola, E. L., & Ngowi, H. A. (2020). DNA-Detection Based Diagnostics for *Taenia solium* Cysticercosis in Porcine. In *Journal of Parasitology Research* (Vol. 2020). Hindawi Limited. <https://doi.org/10.1155/2020/5706981> (Male)
- 7) Asitik, A. J., & **Abu, B. M.** (2020). Women empowerment in agriculture and food security in Savannah Accelerated Development Authority zone of Ghana. *African Journal of Economic and Management Studies*, 11(2), 253–270. <https://doi.org/10.1108/AJEMS-03-2019-0102> (Male)
- 8) **Hakizimana, J. N.**, Nyabongo, L., Ntirandekura, J. B., Yona, C., Ntakirutimana, D., Kamana, O., Nauwynck, H., & Misinzo, G. (2020). Genetic Analysis of African Swine Fever Virus From the 2018 Outbreak in South-Eastern Burundi. *Frontiers in Veterinary Science*, 7, 578474. <https://doi.org/10.3389/fvets.2020.578474> (Male)
- 9) **Maina, S.**, Misinzo, G., Bakari, G., & Kim, H. Y. (2020). Human, animal and plant health benefits of glucosinolates and strategies for enhanced bioactivity: A systematic review. In *Molecules* (Vol. 25, Issue 16, p. 3682). MDPI AG. <https://doi.org/10.3390/molecules25163682> (Female)
- 10) **Hakizimana, J. N.**, Kamwendo, G., Chulu, J. L. C., Kamana, O., Nauwynck, H. J., & Misinzo, G. (2020). Genetic profile of African swine fever virus responsible for the 2019 outbreak in northern Malawi. *BMC Veterinary Research*, 16(1), 1–10. <https://doi.org/10.1186/s12917-020-02536-8> (Male)
- 11) Umuhozariho, M. G., Hagenimana, T., Nsabimana, P., **Sirimu, C.**, Uwobasa, N., & Uwineza, A. P. (2020). Effect of oven and freeze drying on nutritional composition of pumpkin (*Cucurbita maxima*) processed flour. *Rwanda Journal of Agricultural Sciences*, 2(1), 33–39. <https://www.ajol.info/index.php/rjeas/article/view/200843> (Male)
- 12) Shao, E. R., Somi, N. P., **Kifato, E. G.**, Gunda, D. W., Kilonzo, S. B., & Nyombi, B. M. (2019). Bacterial contamination and antimicrobial susceptibility pattern of isolates from stethoscopes at a referral hospital in Tanzania. *Tanzania Medical Journal*, 30(1), 37–52. <https://tmj.or.tz/index.php/tmj/article/view/288> (Male)

### 2. Minerals, Mining and Materials Engineering

- 1) **Moirana, R. L.**, Kivevele, T., Mkunda, J., Mtei, K., & Machunda, R. (2021). Trends towards Effective Analysis of Fluorinated Compounds Using Inductively Coupled Plasma Mass Spectrometry (ICP-MS). In *Journal of Analytical Methods in Chemistry* (Vol. 2021). Hindawi Limited. <https://doi.org/10.1155/2021/8837315> (Female)
- 2) Mahamat, A. A., **Linda Bih, N.**, Ayeni, O., Azikiwe Onwualu, P., Savastano, H., & Oluwole Soboyejo, W. (2021). Development of Sustainable and Eco-Friendly Materials from Termite Hill Soil Stabilized with Cement for Low-Cost Housing in Chad. *Buildings*, 11(3), 86. <https://doi.org/10.3390/buildings11030086> (Female)
- 3) Adeniji, S. A., Cromwell, J., Oyewole, D. O., Oyelade, O. v., **Koech, R. K.**, Sanni, D. M., Oyewole, O. K., Babatope, B., & Soboyejo, W. O. (2021). Pressure-assisted fabrication of perovskite light emitting devices. *AIP Advances*, 11(2), 025112. <https://doi.org/10.1063/5.0035953> (Male)
- 4) Bello, A; Sanni, D M; Adeniji, S A; Anye, V; Orisekeh, K; Kigozi, M; **Koech, R. K.** (2020) Combustion synthesis of battery-type positive electrodes for robust aqueous hybrid supercapacitor. *Journal of Energy Storage*, 27(2), 101160 <https://doi.org/10.1016/j.est.2019.101160> (Male)

- 5) Oyewole, O., Oyewole, D., Oyelade, O., Adeniji, S., **Koech, R. K.**, Asare, J., Agyei-Tuffour, B., & Soboyejo, W. (2020). Failure of Stretchable Organic Solar Cells under Monotonic and Cyclic Loading. *Macromolecular Materials and Engineering*, 305(11), 2000369. <https://doi.org/10.1002/mame.202000369> (Male)
- 6) Sanni, D. M., Ntsoenzok, E., Saintaimé, E., Adeniji, S. A., Oyelade, O. V., **Koech, R. K.**, Amune, D. I., Bello, A. (2020) The role of hafnium acetylacetonate buffer layer on the performance of lead halide perovskite solar cells derived from dehydrated lead acetate as Pb source (*AIP Advances*, 2020) <https://doi.org/10.1063/5.0012646> (Male)
- 7) Komadja, G. C., Pradhan, S. P., Roul, A. R., Adebayo, B., **Habinshuti, J. B.**, Glodji, L. A., & Onwualu, A. P. (2020). Assessment of stability of a Himalayan road cut slope with varying degrees of weathering: A finite-element-model-based approach. *Heliyon*, 6(11), e05297. <https://doi.org/10.1016/j.heliyon.2020.e05297> (Male)
- 8) **Koech, R. K.**, Kigozi, M., Bello, A., Onwualu, P. A., & Soboyejo, W. O. (2019). Recent advances in solar energy harvesting materials with particular emphasis on photovoltaic materials. *IEEE PES/IAS PowerAfrica Conference: Power Economics and Energy Innovation in Africa, PowerAfrica 2019*, 627–632. <https://doi.org/10.1109/PowerAfrica.2019.8928859> (Male)

### 3. Climate Change

- 1) Noulèkoun, F., Birhane, E., Kassa, H., Berhe, A., Gebremichael, Z. M., Adem, N. M., Syoum, Y., Mengistu, T., Lemma, B., Hagazi, N., **Abrha, H.**, Rannestad, M. M., & Mensah, S. (2021). Grazing exclosures increase soil organic carbon stock at a rate greater than “4 per 1000” per year across agricultural landscapes in Northern Ethiopia. *Science of the Total Environment*, 782, 146821. <https://doi.org/10.1016/j.scitotenv.2021.146821> (Male)
- 2) Blomme, G., **Dusingizimana, P.**, Ntamwira, J., Kearsley, E., Gaidashova, S., Rietveld, A., van Schagen, B., & Ocimati, W. (2021). Comparing effectiveness, cost- and time-efficiency of control options for Xanthomonas wilt of banana under Rwandan agro-ecological conditions. *European Journal of Plant Pathology*, 160(2), 487–501. <https://doi.org/10.1007/s10658-021-02258-z> (Female)
- 3) Yisehak, B., Shiferaw, **H.**, **Abrha, H.**, Gebremedhin, A., Hagos, H., Adhana, K., & Bezabh, T. (2021). Spatio-temporal characteristics of meteorological drought under changing climate in semi-arid region of northern Ethiopia. *Environmental Systems Research*, 10(1), 21. <https://doi.org/10.1186/s40068-021-00226-4> (Male)
- 4) Noulèkoun, F., Birhane, E., Mensah, S., Kassa, H., Berhe, A., Gebremichael, Z. M., Adem, N. M., Seyoum, Y., Mengistu, T., Lemma, B., Hagazi, N., & **Abrha, H.** (2021). Structural diversity consistently mediates species richness effects on aboveground carbon along altitudinal gradients in northern Ethiopian grazing exclosures. *Science of the Total Environment*, 776, 145838. <https://doi.org/10.1016/j.scitotenv.2021.145838> (Male)
- 5) Kouyate, Z., Dao, K. M., Togola, O., Malle, A. K., Malle, O., Diakite, K., & **Traore, A.** (2021). Cowpea Seed Innovation Platform: A Hope for Small Seed Producers in Mali. In *Enhancing Smallholder Farmers’ Access to Seed of Improved Legume Varieties Through Multi-stakeholder Platforms* (pp. 143–156). Springer Singapore. [https://doi.org/10.1007/978-981-15-8014-7\\_10](https://doi.org/10.1007/978-981-15-8014-7_10) (Male)
- 6) Sharma, K., Kreuze, J., Abdurahman, A., Parker, M., **Nduwayezu, A.**, & Rukundo, P. (2021). Molecular diversity and pathogenicity of ralstonia solanacearum species complex associated with bacterial wilt of potato in Rwanda. In *Plant Disease* (Vol. 105, Issue 4, pp. 770–779). American Phytopathological Society. <https://doi.org/10.1094/PDIS-04-20-0851-RE> (Male)
- 7) Souleymane, S., Brahim, C., Tchoa, K., Seydou, T., **Adjata, K.**, Daouda, K., & Michel, Z. (2020). Salinity Stress Effect on the Germination of Three Cereals: Maize (*Zea mays*), Millet (*Pennisetum glaucum*) and Rice (*Oriza sativa*). *International Journal of Plant & Soil Science*, 69–78. <https://doi.org/10.9734/ijpss/2020/v32i430273> (Female)
- 8) Rietveld, A.M., **Dusingizimana, P.**, Blomme, G., Gaidashova, S.V., Ocimati, W., Ntamwira, J. (2020). A superior technology to control Banana Xanthomonas Wilt (BXW) in Rwanda. *RTB Research Brief* 03. Lima, Peru: CGIAR Research Program on Roots, Tubers and Bananas. 6 p. <https://cgspace.cgiar.org/handle/10568/110019> (Female)
- 9) **Sodedji, F. A. K.**, Agbahoungba, S., Nguetta, S. P. A., Agoyi, E. E., Ayenan, M. A. T., Sossou, S. H., Mamadou, C., Assogbadjo, A. E., & Kone, D. (2019). Resistance to legume pod borer (*Maruca vitrata* Fabricius) in cowpea: genetic advances, challenges, and future prospects. In *Journal of Crop Improvement* (Vol. 34, Issue 2, pp. 238–267). Taylor and Francis Inc. <https://doi.org/10.1080/15427528.2019.1680471> (Male)
- 10) Ayenan, M. A. T., Danquah, A., Hanson, P., Ampomah-Dwamena, C., **Sodedji, F. A. K.**, Asante, I. K., & Danquah, E. Y. (2019). Accelerating Breeding for Heat Tolerance in Tomato (*Solanum lycopersicum* L.): An integrated approach. In *Agronomy* (Vol. 9, Issue 11, p. 720). MDPI AG. <https://doi.org/10.3390/agronomy9110720> (Male)

### 4. Energy including Renewables

- 1) **Obila, J. O.**, Lei, H., Ayieta, E. O., Ogacho, A. A., Aduda, B. O., & Wang, F. (2021). Improving the efficiency and stability of tin-based perovskite solar cells using anilinium hypophosphite additive. *New Journal of Chemistry*, 45(18), 8092–8100. <https://doi.org/10.1039/d1nj00602a> (Male)



- 2) Nyantakyi, E. K., **Mohammed, S.**; Anumah, P.; Borkloe, J.; Morgan, A. (2020) Investigation of hydrocarbon generation potential of OML 64 in Warri State, Nigeria. *Journal of Applied Geochemistry*; 22(2/3), 192-201 <https://www.proquest.com/docview/2490729566> (Male)

#### 5. **ICTs including Big Data and Artificial Intelligence**

1. **Effah, E.**, & Thiare, O. (2020). Realistic Cluster-Based Energy-Efficient and Fault-Tolerant (RCEFT) Routing Protocol for Wireless Sensor Networks (WSNs). *Advances in Intelligent Systems and Computing*, 1129 AISC, 320–337. [https://doi.org/10.1007/978-3-030-39445-5\\_25](https://doi.org/10.1007/978-3-030-39445-5_25) (Male)
2. **Fidele, M.**, Damien, H., & **Eric, N.** (2020). Effect of Window Size on PAPR Reduction in 4G LTE Network Using Peak Windowing Algorithm in Presence of Non-linear HPA. *2020 IEEE 5th International Conference on Signal and Image Processing, ICSIP 2020*, 1128–1133. <https://doi.org/10.1109/ICSIP49896.2020.9339272> (Male)
3. Thiam, C., & **Thiam, F.** (2019b). Energy Efficient Cloud Data Center Using Dynamic Virtual Machine Consolidation Algorithm. *Lecture Notes in Business Information Processing*, 353, 514–525. [https://doi.org/10.1007/978-3-030-20485-3\\_40](https://doi.org/10.1007/978-3-030-20485-3_40) (Female)
4. Thiam, C., & **Thiam, F.** (2019a, October 1). Optimizing electrical energy consumption in cloud data center. *2019 3rd International Conference on Intelligent Computing in Data Sciences, ICDS 2019*. <https://doi.org/10.1109/ICDS47004.2019.8942232> (Female)
5. Dogbe, A., **Effah, E.**, & Annan, R. K. (2019). Global System for Mobile (GSM) Communication Based Smart-Prepaid Energy Meter Monitoring System. *Research and Applications: Embedded System*, 2(3). <http://hbrppublication.com/OJS/index.php/RAES/article/view/1035> (Male)



**Annex 2: Recommended areas of programme improvement based on the scholars' satisfaction survey.**

Issue	Recommendation
RSIF supported departments have poor training and research infrastructure and their PhD programmes are weakly linked with industry and the private sector	<ul style="list-style-type: none"> <li>• Facilitate PhD scholars' seminars, meetings and events enhance PhD scholars' skills and allow for cross-fertilization of research ideas.</li> <li>• Support AHU pursuance of international accreditations of PhD programmes and laboratories.</li> <li>• Support departments to develop short-term scholars' attachments/internships with industry, policy, and private sector businesses to increase research application.</li> <li>• Leverage on the already established partnerships with international institutions to create more collaborative activities between IPIs and PhD scholars including, grants writing, research implementation, academic exchanges, and access to superior training materials.</li> </ul>
AHU supervisors do not give ample quality time to PhD scholars and AHU are not adequately involving scholars in mentorships activities at the AHUs	<ul style="list-style-type: none"> <li>• RSIF should encourage PhD scholars to develop their annual workplan in collaboration with their AHU supervisors.</li> <li>• RSIF should facilitate more supervisors/faculty to attend PhD scholar supervision training courses.</li> <li>• RSIF should require PhD scholars to report on their involvement in mentoring activities in their continuous progress reporting.</li> <li>• RSIF should liaise with affiliated departments in developing practical strategies to enable RSIF scholars' involvement in departmental education and research activities, as part of the AHU's contractual obligation.</li> </ul>
AHUs and PhD scholars wish to be more involved in matching scholars with IPIs	<ul style="list-style-type: none"> <li>• Make scholars aware from an early stage of the funding restrictions related to awarded scholarships</li> <li>• Work closely with AHUs and scholars to link scholars-IPI supervisors as early as the start of the matching process.</li> <li>• IPI supervisors should be involved in the development of scholars annual workplans.</li> <li>• Work collaboratively with the AHUs in linking IPI supervisors and scholars and should ensure that contact between IPI supervisors and scholars remains strong throughout the programme.</li> </ul>
PhD scholars have had inadequate and delayed access to training in grants writing skills, research commercialization and project planning and management; Also, AHUs have poor infrastructure to support scholars' access to journals and databases	<ul style="list-style-type: none"> <li>• RSIF should bring forward its soft skills training in research commercialization and entrepreneurship, grants and proposal writing, and project management and increase the focus on scholars.</li> <li>• The programme should work with the AHUs and NREs to develop cost-effective strategies of expanding internet size and connectivity.</li> <li>• RSIF should consider providing PhD scholars, especially those in the research phase, with a budget line for enhancing their access to internet.</li> <li>• The programme should promote training of AHU librarians in digital libraries to ensure sustained and reliable access to digital libraries and databases.</li> <li>• The programme should include a budget item for a computer to support PhD training.</li> </ul>
Scholars' progress on their PhD programmes is delayed by institutional and academic factors	<ul style="list-style-type: none"> <li>• Support early matching of scholars with international partner institutions and early alignment of research interests between IPI and AHU supervisors and scholars.</li> <li>• Promote progress-based disbursement of scholar's stipend and research allowances.</li> <li>• Create a scholars' issues portal and allocate a focal person to track scholars' complaints.</li> <li>• Support the development of more scholar specific PhD training contracts.</li> <li>• Increase awareness and training in Grievances Redress Mechanisms (GRMs) among scholars and universities staff.</li> </ul>
There is little emphasis on women-specific family factors in designing RSIF PhD scholarships	<ul style="list-style-type: none"> <li>• Implement the RSIF gender strategy</li> <li>• Women with infants should be supported in developing more flexible annual workplans which provide them adequate time to care for their children.</li> </ul>